

REMARKS

Applicant has carefully reviewed this Application in light of the Office Action mailed June 7, 2004. Claims 17-23 were previously cancelled without prejudice or disclaimer due to an election/restriction requirement. Claims 1-16 and 24-30 are currently pending. Claims 8, 15 and 29 stand rejected under 35 U.S.C. §112, second paragraph, and Claims 1-4, 8 and 9 stand rejected under 35 U.S.C. §102(e). Claims 10-14, 16, 24-28 and 30 have been allowed, and Claims 5-7 are objected to as being dependent upon a rejected base claim. Applicant has amended Claims 1, 5 and 24 to further clarify various features of Applicant's invention. Applicant requests reconsideration and favorable action in this case.

Rejections under 35 U.S.C. § 112

Claims 8, 15, and 29 stand rejected by the Examiner under 35 U.S.C. §112, second paragraph, as being indefinite and failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner asserts that the use of the term "approximately" to modify numerical ranges in Claims 8, 15 and 29 renders such claims indefinite.

Applicant respectfully disagrees. The Federal Circuit has specifically held that the use of the term "approximate" in a claim does not render the claim indefinite. In *Andrew Corporation v. Gabriel Electronics, Inc.*, 847 F.2d 819 (1988), the Federal Circuit held that the use of terms such as "substantially equal" and "closely approximate" in a claim do not render the claim indefinite. The Federal Circuit noted that such terms "are ubiquitous in patent claims" and have generally been accepted in patent examination and upheld by the courts. *Id.* at 821. According to the court, an "imprecise claim limitation, such as the phrase "about 100% per second" does not impart invalidity to the claims, but is to be considered in determination of infringement." (quoting *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 842 F.2d 1275, 1280 (Fed. Cir. 1988)). The court further noted that the M.P.E.P. "instructs examiners in a similar vein. See M.P.E.P. § 706.03(d):

[An examiner] should allow claims which define the patentable novelty with a *reasonable* degree of particularity and distinctness. Some latitude in the manner

of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire. [emphasis in original]" *Id.* at 822.

Thus, Applicant submits that according to the standards set forth by the Federal Circuit and the M.P.E.P., the language "approximately one micron to approximately ten microns" recited in Claims 8, 15 and 29 is not indefinite. Thus, Applicant requests withdrawal of the Examiner's rejection of Claims 8, 15 and 29 under 35 U.S.C. §112.

Rejections under 35 U.S.C. §102

Claims 1-4 and 8-9 stand rejected by the Examiner under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,284,413 issued to Thomas E. Adams ("*Adams*").

Amended Claim 1 recites:

A method for reducing exposure times of high density patterns on a photomask, comprising:
moving at least a portion of a selected feature from a first pattern file to a second pattern file, the at least a portion of the selected feature located in a cell between a first boundary and a second boundary; and
exposing a resist layer of a photomask blank with the first pattern file by using a step and repeat technique.

Adams does not disclose, teach, or suggest "moving at least a portion of a selected feature from a first pattern file to a second pattern file, the at least a portion of the selected feature located in a cell between a first boundary and a second boundary," as specifically recited in amended Claim 1.

Adams discloses a system for manufacturing a semicustom reticle for an integrated circuit. The system includes (1) a library of reticle primitives that contain patterns corresponding to portions of a layer to be formed on a semiconductor wafer; and (2) exposure equipment that uses multiple reticle primitives from the library of reticle primitives to create the multiple portions of an overall pattern on a reticle in order to form the overall pattern in an opaque layer of the reticle, such that the reticle may be used to transfer the overall pattern

to a semiconductor wafer in a single (or multiple, if desired) lithographic process. (Col. 2, lines 12-24).

An example operation of *Adams*' system is shown in FIGURES 3A-3G and described as follows:

- FIG. 3A: A reticle blank is provided that includes a substrate 310, a layer of opaque material (chromium) 320 formed over substrate 310, and a layer of photoresist 330 formed over opaque layer 320. (col. 5, lines 44-64).
- FIG. 3B: A first reticle primitive 340 having a first pattern is selected from a reticle library, and the first pattern is transferred onto a first portion 335a of photoresist 330 by shining radiation through the first reticle primitive 340. (col. 5, line 65 to col. 6, line 14).
- FIG. 3C: A second reticle primitive 360 having a second pattern is selected from the reticle library, and the second pattern is transferred onto a second portion 335b of photoresist 330 by shining radiation through the second reticle primitive 360. (col. 6, line 15 to col. 6, line 32).
- FIGS. 3D-3E: Photoresist 330 is developed to wash away areas corresponding to the patterns transferred using first and second reticle primitives 340 and 360, resulting in the patterned photoresist 330 shown in FIG. 3E. (col. 6, line 66 to col. 7, line 15).
- FIG. 3F: An etching process is performed to transfer the pattern formed in photoresist 330 to opaque (chromium) layer 320. (col. 7, lines 16-24).
- FIG. 3G: The remaining portions of photoresist 330 are removed. (col. 7, lines 24-26).

Thus, *Adams* merely discloses a system and method for using reticle primitives selected from a library of reticle primitives to form patterns in different portions of a photoresist layer, which patterns are then transferred to an opaque layer of a reticle in order to form a composite pattern in a reticle. *Adams* does not disclose, teach or suggest "at least a

portion of [a] selected feature located in a cell between a first boundary and a second boundary,” much less “moving at least a portion of [such] selected feature from a first pattern file to a second pattern file,” as specifically recited in amended Claim 1.

Regarding these limitations, the Examiner alleges – without further explanation – that “[t]he selected feature from a first pattern file (that is, the first reticle primitive) is moved to a second pattern file (that is, the second reticle primitive) to create the semicustom reticle.” (Office Action, page 4). Thus, it appears that the Examiner is attempting to equate the first reticle primitive 340 and second reticle primitive 360 disclosed by *Adams* with the “first pattern file” and “second pattern file” recited in Claim 1, respectively. However, the Examiner provides no explanation of what element of *Adams* is “the selected feature,” or how *Adams* discloses moving such selected feature from the first reticle primitive 340 to the second reticle primitive 360 to create the semicustom reticle. In fact, *Adams* fails to disclose moving *anything* from first reticle primitive 340 to the second reticle primitive 360, much less moving anything that could be equated with the “selected feature located in a cell between a first boundary and a second boundary,” as recited in amended Claim 1.

For at least these reasons, *Adams* fails to disclose, teach, or suggest all of the limitations recited in amended Claim 1. Therefore, Applicant respectfully requests reconsideration and allowance of amended Claim 1, together with Claims 2-4 and 8-9 that depend therefrom.

Allowable Subject Matter

Applicant appreciates the Examiner’s allowance of Claims 10-14, 16, 24-28, and 30.

Applicant further appreciates the Examiner’s indication that Claims 5-7 would be allowable if rewritten in independent form and Claims 15 and 29 would be allowable if rewritten to overcome the rejections under 35 U.S.C. §112, second paragraph, set forth above, to include all of the limitations of the base claim and any intervening claims. Because Applicant believes that Claims 1, 15 and 29 are allowable for at least the various reasons

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discussed above, Applicant will await further decision on 1, 15 and 29 before taking further action regarding Claims 5, 15 and 29.

CONCLUSION

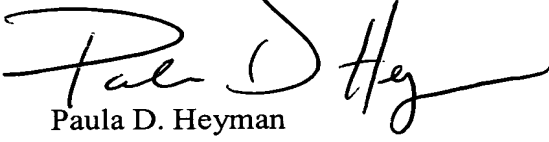
Applicant appreciates the Examiner's careful review of the application. Applicant has now made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. For the foregoing reasons, Applicant respectfully requests reconsideration of the rejections and full allowance of Claims 1-16 and 24-30 as amended.

Applicant believes no further fee is due, however, the Commissioner is hereby authorized to charge any fees to Deposit Account No. 50-2148 of Baker Botts L.L.P. in order to effectuate this filing.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney at 512.322.2581.

Respectfully submitted,

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